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TWIN DIODE—MEDIUM-MU TRIODE

9-PIN MINIATURE TYPE

Intended for use in equipment having series heater-string arrangement

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage	6.3	ac or dc volts
Current	0.6	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:°

Triode Unit:		
Grid to plate	2.6	μμf
Grid to heater and cathode	2.8	μμf
Plate to heater and cathode	0.31	μμf
Diode Units:		
Diode-No.1 plate to triode grid	0.07 max.	μμf
Diode-No.2 plate to triode grid	0.11 max.	μμf
Diode-No.1 cathode to all other electrodes	4.8	μμf
Diode-No.2 cathode to all other electrodes	4.8	μμf
Diode-No.1 plate to diode-No.2 plate	0.06 max.	μμf
Diode-No.1 plate to diode-No.1 cathode and heater	1.9	μμf
Diode-No.2 plate to diode-No.2 cathode and heater	1.9	μμf
Diode-No.1 cathode to diode-No.1 plate and heater	4.6	μμf
Diode-No.2 cathode to diode-No.2 plate and heater	4.6	μμf
Diode-No.1 plate to all other electrodes	3	μμf
Diode-No.2 plate to all other electrodes	3	μμf

Characteristics, Class A_1 Amplifier (Triode Unit):

Plate Voltage	90	250	volts
Grid Voltage	0	−9	volts
Amplification Factor	22	20	
Plate Resistance (Approx.)	4700	7150	ohms
Transconductance	4700	2800	μmhos
Plate Current	13.5	8	ma
Plate Current for grid volts = −12.5	−	1.7	ma
Grid Voltage (Approx.) for plate μa. = 10	−7	−18	volts

°: See next page.

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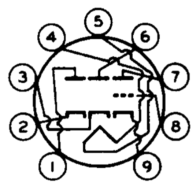
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TWIN DIODE—MEDIUM-MU TRIODE

Mechanical:

Operating Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Maximum Diameter	7/8"
Dimensional Outline	*See General Section*
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JETEC No.E9-1)
Basing Designation for BOTTOM VIEW	9ER

Pin 1 - Diode-No.2 Plate
Pin 2 - Diode-No.2 Cathode
Pin 3 - Diode-No.1 Cathode
Pin 4 - Heater



Pin 5 - Heater
Pin 6 - Diode-No.1 Plate
Pin 7 - Triode Plate
Pin 8 - Triode Grid
Pin 9 - Triode Cathode

TRIODE UNIT — AMPLIFIER — Class A_1

Maximum Ratings, *Design-Center Values:*

PLATE VOLTAGE	300	max.	volts
GRID VOLTAGE:			
Positive bias value	0	max.	volts
AVERAGE CATHODE CURRENT	20	max.	ma
PLATE DISSIPATION	3.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200▲	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	1	max.	megohm

TRIODE UNIT — VERTICAL DEFLECTION AMPLIFIER

Maximum Ratings, *Design-Center Values Except as Noted:*

For operation in a 525-line, 30-frame system□

DC PLATE VOLTAGE	300	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum)#	1200■	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	250	max.	volts
CATHODE CURRENT:			
Peak	70	max.	ma
Average	20	max.	ma
PLATE DISSIPATION	3.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200▲	max.	volts

o,▲,□,#,■: See next page.

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TWIN DIODE—MEDIUM-MU TRIODE

Maximum Circuit Values:

Grid-Circuit Resistance:

For cathode-bias operation	2.2	max.	megohms

DIODE UNITS — Two

Maximum Ratings, *Design-Center Values:*

Values are for Each Unit

PEAK PLATE CURRENT.	54	max.	ma
DC PLATE CURRENT.	9	max.	ma
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode .	200	max.	volts
Heater positive with respect to cathode .	200▲	max.	volts

○ Without external shield.

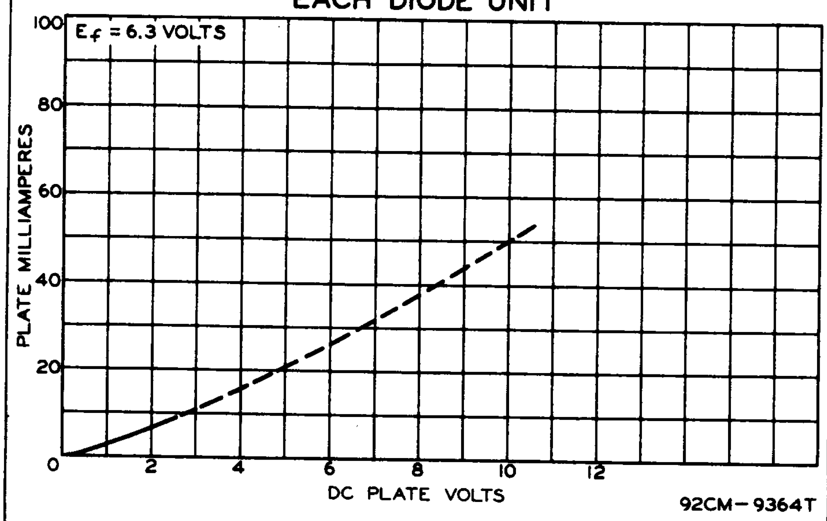
▲ The dc component must not exceed 100 volts.

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast stations," Federal Communications Commission.

This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

■ Under no circumstances should this absolute value be exceeded.

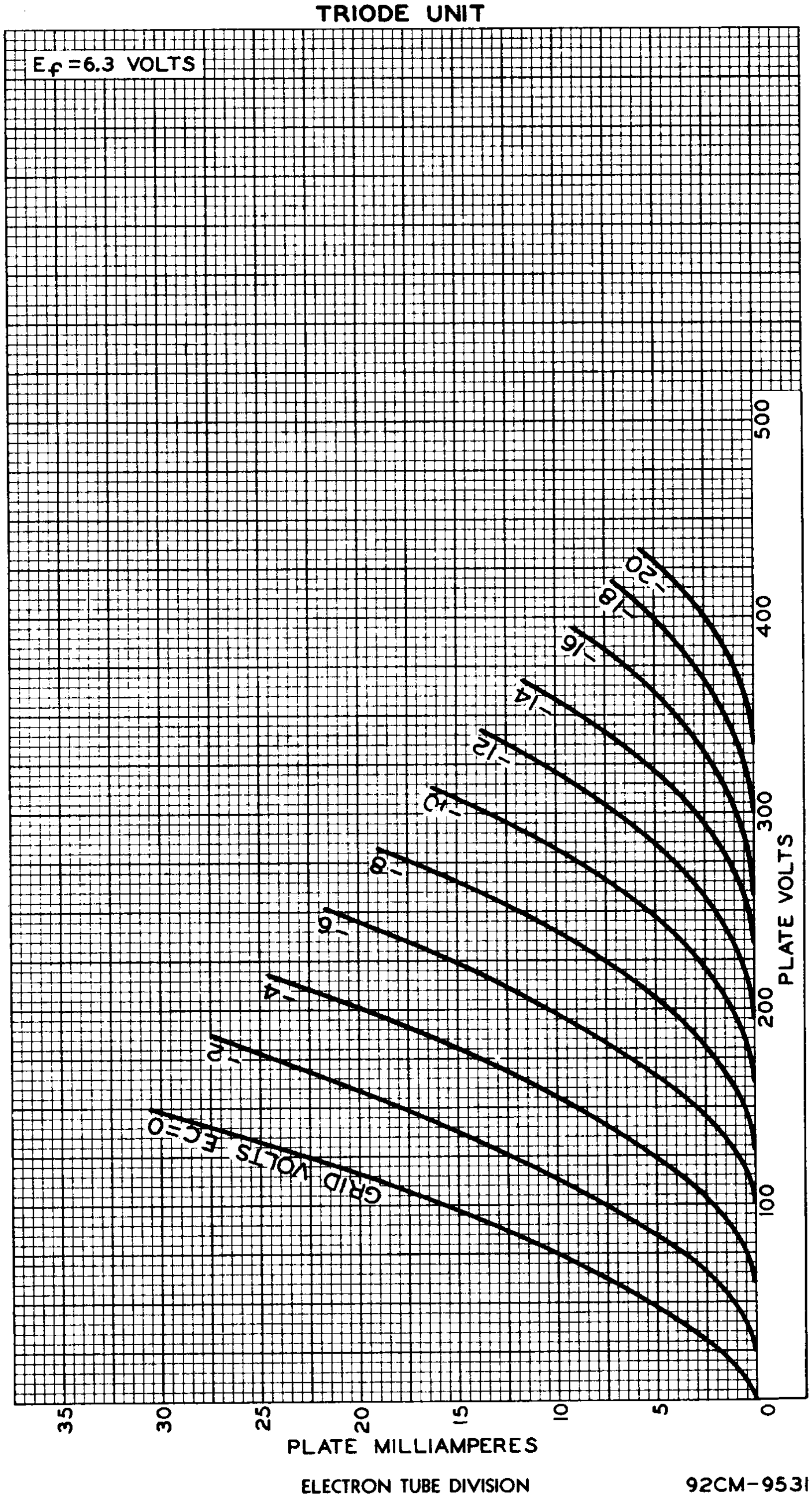
AVERAGE PLATE CHARACTERISTIC
EACH DIODE UNIT



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AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

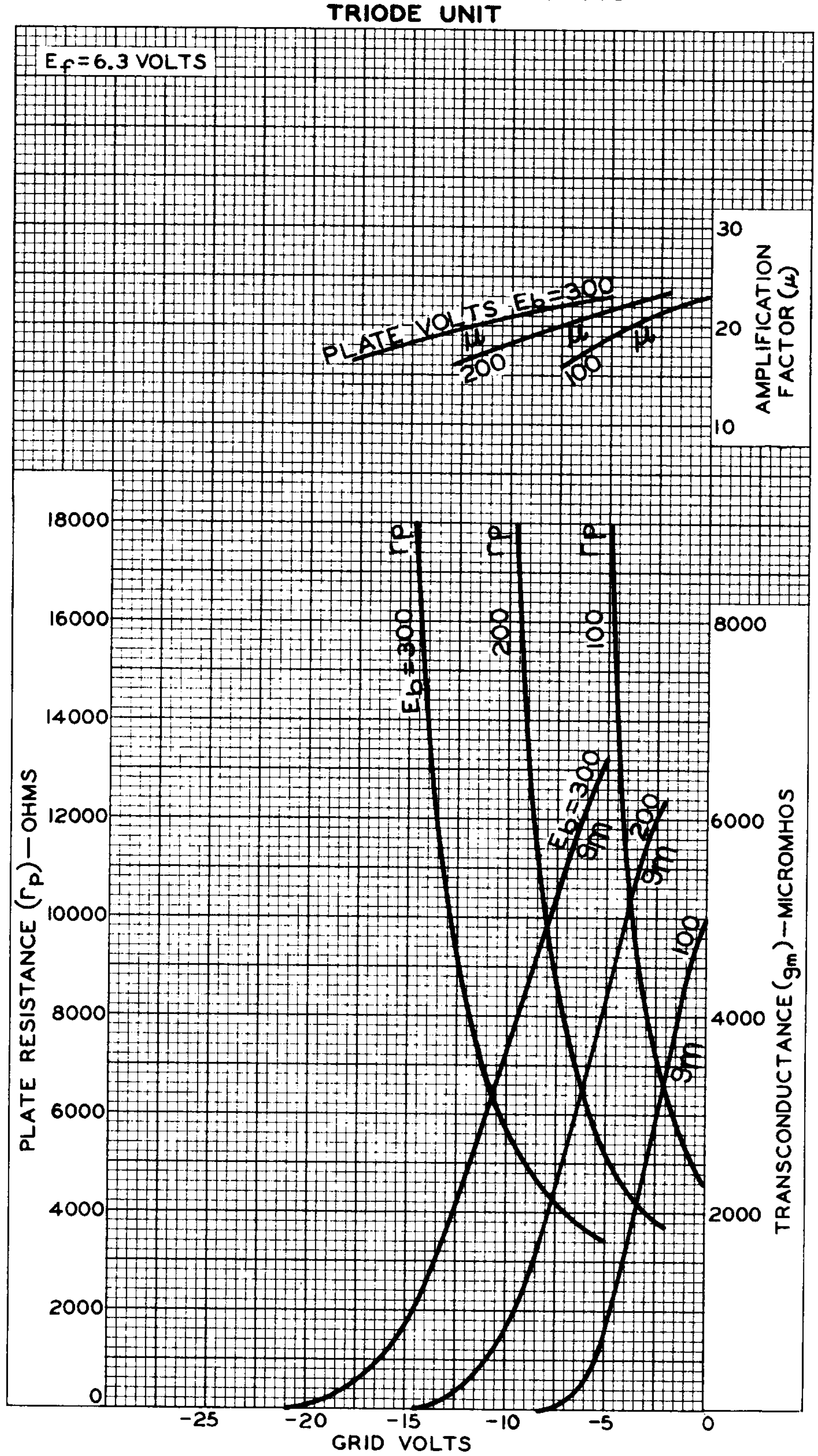


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AVERAGE CHARACTERISTICS
TRIODE UNIT



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